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REMARKS

Status Summary

Claims 1-30 are pending in the present application. Claims 1-9 and 21-30 are allowed. Claims 10 and 13-20 presently stand rejected. Claims 10-12 presently stand objected to. Claims 10 and 13-20 have been amended by the present amendment. Claims 11 and 12 have been canceled by the present amendment. New Claims 31-35 are added by the present amendment. Therefore, upon entry of Amendment A, Claims 1-10 and 13-35 will remain pending in the subject patent application.

Abstract

The Examiner states that the application does not contain an abstract of the disclosure as required by 37 CFR § 1.72(b). An abstract on a separate sheet is enclosed herewith. No new matter has been added.

Claim Objections

The Examiner has objected to Claim 10 based on the following informality: "... the word 'and' should be inserted between the last two formulae of the linking groups." Applicants amended Claim 10 by inserting the word "and" between the last two formulae of the linking groups. Applicants respectfully submit that the appropriate correction has been made to Claim 10

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by way of non-limiting amendment and that the objection to Claim 10 has been overcome by applicants' amendment.

Further, the Examiner has objected to Claims 11 and 12 as being dependent upon a rejected base claim, but stated that Claims 11 and 12 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In response to the Examiner's objection, applicants canceled Claim 11 and added new Claim 31, which represents original dependent Claim 11 rewritten in independent form so as to recite all of the limitations of original dependent Claim 10 from which original Claim 11 depends. Applicants submit that new Claim 31 is now in condition for allowance and respectfully request the same.

In the event that the Examiner rejects new Claim 31 by asserting that it does not comply with the written description requirement of 35 U.S.C. § 112, first paragraph, under the contention that the specification does not describe what is meant by the terms "thio derivatives" and "quaternized nitrogen derivatives" and that the specification does not define "Q," applicants have, in the alternative, added new Claim 32, which represents new Claim 31 with references to X being selected from "thio derivatives," "quaternized nitrogen derivatives," and "Q" deleted. Applicants submit, in the alternative, that new Claim 32 is now in condition for allowance and respectfully request the same.

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Applicants also canceled Claim 12 and added new Claim 33, which represents original Claim 12 rewritten in independent form so as to recite all of the limitations of original Claim 10 from which it depends.

In the event that the Examiner rejects new Claim 33 by asserting that it does not comply with the written description requirement of 35 U.S.C. § 112, first paragraph, under the contention that the specification does not describe what is meant by the terms "thio derivatives" and "quaternized nitrogen derivatives" and that the specification does not define "Q," applicants have, in the alternative, added new Claim 34, which represents new Claim 33 with references to X being selected from "thio derivatives," "quaternized nitrogen derivatives," and "Q" deleted. Applicants submit, in the alternative, that new Claim 34 is now in condition for allowance and respectfully request the same.

Applicants respectfully submit the Examiner's objections to Claims 11 and 12 have been overcome by the cancellation of Claims 11 and 12 and the addition of new Claims 31-34.

In sum, applicants have addressed all issues raised by the Examiner and submit that the objections have been overcome by applicants' amendments as set forth herein, and therefore request formal withdrawal of the objections.

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Claim Rejections – 35 U.S.C. § 112

I. Claim Rejections – 35 U.S.C. § 112, first paragraph

Claim 10 stands rejected by the Examiner under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner states that Claim 10 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. More specifically, the Examiner contends that the specification does not describe what is meant by the terms "thio derivatives" and "quaternized nitrogen derivatives" or how they are prepared and that the specification also does not define "Q." After careful consideration of the rejection of Claim 10 under 35 U.S.C. § 112, first paragraph, applicants respectfully traverse the rejection and submit the following comments.

Applicants initially note that as a matter of Patent Office practice, the burden rests upon the Examiner to establish a prima facie case of a failure to comply with 35 U.S.C. § 112, first paragraph, with respect to the subject matter described and claimed in applicants' patent application. See Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, ¶ 1, "Written Description" Requirement (hereinafter "Guidelines"), 66 Fed. Reg. at 1105. Under the Guidelines, the Examiner has "the initial burden, after a thorough reading and evaluation of the content of the application, of presenting evidence or reasons why a person skilled in the art would not recognize in an applicant's

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disclosure a description of the invention defined by the claims". Id. Furthermore, the Examiner must establish "by a preponderance of the evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined in the claims". Id. at 1107 (citing Wertheim, 541 F.2d at 263). Additionally, the Guidelines state that there is a "strong presumption that an adequate written description of the claimed invention is present in the specification as filed". Id. (citing In re Wertheim, 541 F.2d 257, 262 (CCPA 1976)).

The Examiner contends that the specification of the instant application does not reasonably convey to one skilled in the relevant art that applicants had possession of the claimed subject matter. The Examiner, however, offers no specific scientific or other factual basis in the Official Action to support this contention. Instead, the Examiner offers only a conclusory statement that the specification does not describe what is meant by the terms "thio derivatives" and "quaternized nitrogen derivatives" or how they are prepared and that the specification also does not define "Q." Official Action at pages 2 and 3. Applicants respectfully submit that this conclusory statement does not meet the burden of presenting evidence of why a person skilled in the art would not recognize in applicants' disclosure a description of the subject matter defined by the claims. Applicants also submit that the mere recitation of this conclusory statement does not show by a preponderance of the evidence that a person of ordinary skill in the art would not recognize that the written description of the

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instant application provides support for the claimed subject matter. Further, applicants respectfully submit that this statement does not overcome the strong presumption that an adequate written description of the claimed subject matter is present in the instant specification as filed.

Applicants therefore respectfully submit that the Examiner has not met the initial burden of showing by a preponderance of the evidence that a person of ordinary skill in the art would not recognize that the written description of the instant application provides support for the claimed subject matter. Further, applicants submit that the Examiner has not rebutted the presumption that an adequate written description of the claimed subject matter is present in the specification of the instant application as filed. Therefore, applicants respectfully submit that the Examiner has not made out a prima facie case under 35 U.S.C. § 112, first paragraph. Accordingly, applicants submit that Claim 10 is in compliance with 35 U.S.C. §112, first paragraph, and respectfully request the withdrawal of the rejection of Claim 10 under 35 U.S.C. § 112, first paragraph.

Assuming arguendo, however, that the Examiner has made a prima facie case of a failure to comply with 35 U.S.C. §112, first paragraph, applicants respectfully submit the following.

Initially, applicants note that one of ordinary skill in the art to which the claimed subject matter pertains "would, of necessity have the capability of understanding the scientific . . . principles applicable to the pertinent art."

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Manual of Patent Examining Procedure [hereinafter "MPEP"] at § 2141.03 (quoting Ex parte Hiyamizu, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988)). Thus, "[i]f a skilled artisan would have understood the inventor to be in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate description requirement is met." Id. (citing Vas-Cath, 935 F.2d at 1563, 19 USPQ2d at 1116; Martin v. Johnson, 454 F.2d 746, 751, 172 USPQ 391, 395 (CCPA 1972)). Therefore, "[w]hat is conventional or well known to one of ordinary skill in the art need not be disclosed in detail." Id. at § 2163(II.A.3.a) (citing Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d at 1384, 231 USPQ at 94).

Applicants submit that the terms "thio derivatives" and "quaternized nitrogen derivatives" are well known to one of ordinary skill in the art, and as such, need not be disclosed in detail. Further, the variable "Q" is merely an abbreviation for the term "quaternized nitrogen derivatives." The use of "Q" as an abbreviation for the term "quaternized nitrogen derivatives" also is well known to one of ordinary skill in the art, and as such, need not be disclosed in detail. For example, U.S. Patent No. 6,518,407 to Brock et al. [hereinafter the "'407 patent"] discloses exemplary thio derivatives suitable for use as linking groups in reactive dye compounds. See '407 patent, at columns 4 and 5. Applicants note that the PCT filing and publications dates of the '407 patent precede the filing date of the instant application. Therefore, the '407 patent

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represents the state of the prior art relevant to the subject matter of the instant application. Further, the '407 patent to Brock et al. also discloses exemplary quaternized nitrogen derivatives, which are represented by the variable "Q" and are suitable for use as linking groups in reactive dye compounds. See '407 patent, at columns 5 and 6. Applicants submit that one of ordinary skill in the art would have the capability of understanding the scientific principles applicable to the terms "thio derivatives" and "quaternary nitrogen derivatives" and the variable "Q" as described in the instant application. Thus, applicants submit that one of ordinary skill in the art would have understood the applicants to be in possession of the claimed subject matter at the time of filing. Therefore, applicants submit that amended Claim 10 complies with the written description requirement under 35 U.S.C. § 112, first paragraph.

Further, an applicant may show possession of the claimed subject matter by describing the claimed subject matter using descriptive means, such as words. See MPEP at § 2163(I). Applicants submit that the terms "thio derivatives" and "quaternized nitrogen derivatives" encompass words that are well known to one of ordinary skill in the art. For example, exemplary thio derivatives and quaternized nitrogen derivatives are disclosed in the '407 patent to Brock et al. Thus, applicants submit that the recitation of the words "thio derivatives" and "quaternized nitrogen derivatives" to describe the subject matter of amended Claim 10 complies with the requirements of 35 U.S.C. § 112, first paragraph.

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Finally, applicants note that 35 U.S.C. § 112, first paragraph, requires no more than a disclosure sufficient to convey to one of ordinary skill in the art that applicants were in possession of the invention commensurate with the scope of the claims. See Guidelines at 1105 (citing Wang Labs. v. Toshiba Corp., 993 F.2d 858, 865 (Fed. Cir. 1993)). Applicants note that the instant application uses the terms “thio derivatives” and “quaternary nitrogen derivatives” and the variable “Q” to describe substituent groups on a nitrogen-containing heterocycle making up a linking group of a reactive dye compound. See pages 7 and 8 of the Published PCT Application No. WO 01/25338 A1 [hereinafter the “‘338 Published PCT Application’”], which is the parent PCT application to the instant application. Applicants note that the reactive dye compounds of the instant application are formed by reacting a starting dye material with compounds containing, for example, hydrated forms of sucrose, glucose and formic acid. See, e.g., pages 9 and 11 of the ‘338 Published PCT Application. The starting dye material contains a $D-(L)_r-SO_2-CH_2CH_2-$ group, wherein D is a chromophore and L is a linking group, which can comprise a nitrogen-containing heterocycle containing a “thio derivative” or a “quaternized nitrogen derivative” substituent group. Such starting materials are commercially available, see the ‘338 Published PCT Application at page 11, lines 20-22, or are well known in the art, see, e.g., the ‘407 patent, columns 4-6. Thus, applicants submit that the disclosure of the terms “thio derivatives” and “quaternized nitrogen derivatives” in the specification as filed is sufficient to

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convey to one of ordinary skill in the art that applicants were in possession of the invention commensurate with the scope of amended Claim 10 and that the requirements of 35 U.S.C. § 112, first paragraph, are therefore met.

In the event that the Examiner is not persuaded by the above remarks and rejects amended Claim 10 by asserting that it does not comply with the written description requirement of 35 U.S.C. § 112, first paragraph, under the contention that the specification does not describe what is meant by the terms "thio derivatives" and "quaternized nitrogen derivatives" and that the specification does not define "Q," applicants have, in the alternative, added new Claim 35, which represents amended Claim 10 with references to X being selected from "thio derivatives," "quaternized nitrogen derivatives," and "Q" deleted. Applicants submit that new Claim 35 is now in condition for allowance and respectfully request the same.

II. Claim Rejections – 35 U.S.C. § 112, second paragraph

Claims 10 and 13-20 stand rejected by the Examiner under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner contends that the variable Q is not defined in Claim 10, the variables D, Z and Y are not defined in Claim 13, and the variables D, Y and Ar are not defined in Claim 14.

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Preliminarily, applicants note that the variable "Q" is merely intended to be an abbreviation for the term "quaternized nitrogen derivatives" recited in Claim 10. By way of a clarifying, nonlimiting amendment, applicants amended Claim 10 by striking the commas setting off the variable "Q" and enclosing "Q" in parentheses to particularly point out and distinctly claim the subject matter disclosed in the instant application. Applicants therefore respectfully request that the rejection of Claim 10 under 35 U.S.C. § 112, second paragraph, be withdrawn and Claim 10 be allowed at this time.

Further, in response to the Examiner's comments, applicants amended Claim 13 by reciting the following definitions of the variables D, Z and Y: D is a chromophore group; Z is a nitrogen-containing heterocycle; and Y is derived from a hydrated aldehyde, a hydrated ketone, a hydrated alpha-hydroxy ketone or the hydrated form of formic acid, and linked via one of its oxygen atoms to the terminal carbon of the SO₂C₂H₄ group thereby forming a hemiacetal. Support for this amendment can be found on page 3, lines 9-12; page 5, lines 19-21; page 7, line 10; and page 8, lines 14-15, of the '338 Published PCT Application and in Claims 1 and 10 of the application as filed.

Finally, in response to the Examiner's comments, applicants amended Claim 14 by reciting the following definitions of the variables D, Y and Ar: D is a chromophore group; Y is derived from a hydrated aldehyde, a hydrated ketone, a hydrated alpha-hydroxy ketone or the hydrated form of formic acid, and linked via one of its oxygen atoms to the terminal carbon of the SO₂C₂H₄ group

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thereby forming a hemiacetal; and Ar is an aryl group, preferably benzene. Support for this amendment can be found on page 3, lines 9-12; page 5, lines 19-21; page 7, line 10; and page 8, line 6, of the '338 Published PCT Application and in Claims 1 and 10 of the application as filed.

Additionally, the Examiner contends that Claims 15-20 provide for the use of a compound according to Claim 1, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass.

In response to the Examiner's comments, by way of a clarifying, non-limiting amendment, applicants amended Claims 15-20 in accordance with § 2173.05(q) of the MPEP to set forth a step, e.g., contacting a substrate with a compound, involved in the process. Support for these amendments can be found on pages 20 and 21 and in Examples 17 and 20 of the '338 Published PCT Application. Applicants submit that Claims 15-20 as amended particularly point out and distinctly claim the subject matter disclosed in the instant application. Applicants therefore respectfully request that the rejection of Claims 15-20 under 35 U.S.C. § 112, second paragraph, be withdrawn and Claims 15-20 be allowed at this time.

In sum, applicants have addressed all issues raised by the Examiner and submit that the 35 U.S.C. § 112 rejections have been overcome by applicants' amendments as set forth herein, and therefore request formal withdrawal of the rejections.

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Claim Rejections – 35 U.S.C. § 101

Claims 15-20 stand rejected by the Examiner under 35 U.S.C. § 101 based on the contention that the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. § 101.

In response to the Examiner's comments, by way of a clarifying, non-limiting amendment, applicants amended Claims 15-20 in accordance with § 2173.05(q) of the MPEP to set forth a step, e.g., contacting a substrate with a compound, involved in the process. Support for these amendments can be found on pages 20 and 21 and in Examples 17 and 20 of the '338 Published PCT Application. Applicants submit that Claims 15-20 as amended are proper process claims under 35 U.S.C. § 101. Applicants therefore respectfully request that the rejection of Claims 15-20 under 35 U.S.C. § 101 be withdrawn and Claims 15-20 be allowed at this time.

In sum, applicants have addressed all issues raised by the Examiner and submit that the 35 U.S.C. § 101 rejections have been overcome by applicants' amendments as set forth herein, and therefore request formal withdrawal of the rejections.

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New Claims

As discussed hereinabove, the following new claims have been added by the present amendment.

New Claim 31, which represents original dependent Claim 11 rewritten in independent form so as to include the limitations of original independent Claim 10 from which it depends, has now been added.

New Claim 32, which represents new Claim 31 with references to X being selected from "thio derivatives," "quaternized nitrogen derivatives," and "Q" deleted has now been added.

New Claim 33, which represents original dependent Claim 12 rewritten in independent form so as to include the limitations of original independent Claim 10 from which it depends, has been added.

New Claim 34, which represents new Claim 33 with references to X being selected from "thio derivatives," "quaternized nitrogen derivatives," and "Q" deleted has now been added.

New Claim 35, which represents amended Claim 10 with references to X being selected from "thio derivatives," "quaternized nitrogen derivatives," and "Q" deleted has now been added.

Applicants submit that new Claims 31-35 are now allowable and respectfully request formal allowance of these claims.

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Allowed Claims

Finally, applicants wish to thank the Examiner for indicating that Claims 1-9 and 21-30 are allowable over the prior art of record. Applicants also wish to thank the Examiner for indicating that Claims 11 and 12, which are objected to as being dependent upon a rejected base claim, would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants added new Claims 31-34, which represent original dependent Claims 11 and 12 rewritten in independent form so as to include the limitations of original independent Claim 10, from which they depend. Applicants submit that new Claims 31-34 are now in condition for allowance and respectfully request the same.

Power of Attorney

Applicants call the Examiner's attention to the fact that applicants submitted a Revocation and Substitution of Power of Attorney on October 21, 2003 to the U.S. Patent and Trademark Office, and a copy as filed is attached hereto.

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CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

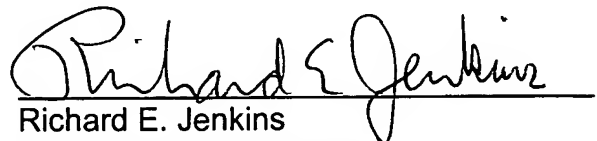
The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. 50-0426.

Respectfully submitted,

JENKINS, WILSON & TAYLOR, P.A.

Date: 11-25-03

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